

# Antlion *ante* LINNÉ (Neuroptera, Myrmeleontidae): The eye of the Lynx over the antlions<sup>1</sup>

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**Abstract:** A drawing of an antlion is found among other insect illustrations in one of the eight manuscripts of the Delessert collection in the Bibliothèque de l'Institut de France. This is the first scientific illustration of an Italian Neuropteran, about a century before the description of the life-history of an antlion by VALLISNERI, and the first record of a Linceans view on Neuroptera.

**Key words:** Federico Cesi, Neuroptera, Myrmeleontidae, Delessert collection, Academy of Linceans.

## Introduction

In 1992 KEVAN posthumously published one of the most fascinating papers concerning an historical account of the meaning of the word antlion through the ages. In his analysis of old entomological literature before the LINNAEUS' first mention of antlions in 1740, he gave no substantial references between the middle of the 16<sup>th</sup> century and the early 18<sup>th</sup> century. LETARDI (1998) indicated the description of the life-history of an antlion by VALLISNERI (1733) as the first illustration of an Italian Neuropteran, most probably native of the northern Adriatic coast.

On the occasion of the fourth centenary of the birth of Federico CESI (1585-1630), a committee, created by the Academy of the Lincei for the celebrations, sent a cultural mission to Paris to obtain direct knowledge of the mycological codes of the Lincei preserved in the Bibliothèque de l'Institut de France and rediscovered five years before by UBRIZSY (1980). A larger amount of material was found: not only the three codes concerning fungi, but also five volumes named „Plantae et Flores“. These eight in-folio volumes of drawings represent the Syntaxis plantaria, part of the iconographical support of the CESI's project Theatrum totius Naturae. The last of the volumes, MS (i.e. manuscript) 978, is a miscellany, perhaps the oddest of all the volumes left behind by CESI, with fungi, plants and animals. Not so unexpectedly, there are several drawings of insects: one of these is undoubtedly of an adult of an antlion (Fig. 1).

## Material and Methods

After the plunder of Rome in 1798, the traces of a famous mycological codex of Federico CESI were lost. The



Fig. 1: Detail of drawing 325, MS 978, Collection Benjamin Delessert which illustrates an antlion (by courtesy of M.me Mireille Pastoreau, director of the Bibliothèque de l'Institut de France, Paris).

codex was taken away from the library Albani, together with other books: each of the volumes have the distinctive stamp of the Albani family on their spines. They reached France through d'ORTEIL, director of the French Military Post Office in Rome during that period. A reconstruction of this troubled transfer is well-illustrated by UBRIZSY (1980).

Nowadays, eight in-folio manuscripts (about 1900 pages) are preserved in the collection Delessert in the Bibliothèque de l'Institut de France, Paris. Three have Fungorum Genera et Species inscribed on their spines (i.e. the lost mycological codex of Federico CESI); five have Plantae et Flores written there. Each contain sever-

<sup>1</sup> This paper is dedicated to Prof. Horst Aspöck on the occasion of his 65th birthday, for his very keen, lynx view on Neuroptera





Fig. 2: A portrait of Federico Cesi.

al pages of an alphabetical index probably written by Cassiano dal Pozzo (1583-1657), a member of the Lincean Society, who preserved several of Cesi's manuscripts in his library after Cesi's death in 1630. Many pages of the manuscripts contain several drawings per page most of which are in colour, often of a high quality (higher than drawings of organisms in that period) and sometimes with detail, as clearly stated in the inscriptions, seen with the aid of a microscope (Galileo's occhialino, that the scientist sent to Cesi on September 23, 1624) or lens. While the volumes entitled *Fungorum Genera et Species* are only devoted to fungi, lichens and mosses, those inscribed *Plantae et Flores* contain not only Italian and exotic plants and flowers, but also a large number of extraordinary drawings, often just in pen and ink, of insects, animals, and a few other curiosities.

A considerable number of sheets also include inscriptions, generally quite brief, on the exact location where the illustrated specimens were found, as well as the actual date on which they were drawn. The earliest specific date is December 23, 1624; the latest October 15, 1628. The localities recorded are either in Rome and the Latium countryside around it, or Acquasparta (where Cesi's family had his main country estate) and its Umbrian environs.

MS 978 is the most puzzling, the most random, and the most crucial of all these volumes. It is a miscellany, containing not only the usual watercolors and pen-and-ink drawings, but also a large number of rather primitive engravings. The drawings are mostly of fungi and vegetable matter (algae, grasses, some flowers, including a few exotic ones from America), but there is also a small section containing insects and other animals, grouped together toward the end. MS 978 was clearly made over a number of years with illustrations by many different hands. It contains some of the very earliest drawings in this whole corpus, as well as some of the latest, dating from between 1623 and 1626 (FREEDBERG 2002). It is also possible that all the illustrations in the eight volumes preserved in the Delessert collection could have been re-

alized in the first three decades of the 17<sup>th</sup> century (DE ANGELIS & LANZARA 1986).

## Results and Discussion

None of the pages in MS 978 with drawings of insects are mentioned in the index of the volume, except for the Orthoptera on sheet 321 indexed as „locusta absq. alis et cauda mucronata“. The antlion is drawn on sheet 325, among several other insects (damselfly, beetles, bumblebee, moth, and so on), all common species in central Italy. There aren't any details about date, location etc, but it is plausible to consider that the antlion was one of the specimens collected somewhere in central Italy and drawn by the Linceans in the first three decades of the 17<sup>th</sup> century, about a century before the publication of VALLISNERI's illustration of the antlion life-history. As a consequence of this plausible consideration, three brief statements could be made: two concerning general topics, the third, more particularly but very speculatively, about the identity of the antlion.

### The 17<sup>th</sup> century – The Academies and the introduction of the microscope for scientific purposes

The Academies represented some of the fruitful expressions of the 17<sup>th</sup> century. They were founded and attended by individuals interested in the advancement of particular disciplines by way of experimenting. Before the foundation of the Royal Society and the Académie Royale des Sciences, in England and France respectively, in Italy two small academies were established: the Accademia dei Lincei (Lyncean Academy) in Rome and the Accademia del Cimento (Contest Academy) in Florence. At the same time, Galileo GALILEI (1564-1642), the Italian astronomer, in addition to the telescope, also became interested in perfecting the microscope to use as a tool for scientific research. He provided a very simple microscope to the members of the Lyncean Academy; one of them, Francesco STELLUTI (1557-1653) from Fabriano (Marche), used this microscope to study the exterior surface of the bee and depicted his findings in precisely drawn plates published in a book entitled „Persio Tradotto“ (STELLUTI 1630). This was the first book to contain illustrations of natural objects as seen through the microscope. The microscope was also used by Linceans to draw many of the illustrations in the eight manuscripts of the Delessert collection. The availability of a microscope as an investigative tool was of extreme importance for future research in the 1600s in Italy (RONCALLI AMICI 2001).

### Federico Cesi and the Accademia dei Lincei

Federico Cesi (1585-1630) (see Fig. 2), GALILEO's most devoted and ardent supporter, was the key-figure of Linceans. Alongside Cesi are the brilliant and often